

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A steel wire for high-strength spring having superior workability, the steel wire having tempered martensite, the steel wire comprising by mass:

C: 0.53 to 0.68%;

Si: 1.2 to 2.5%;

Mn: 0.2 to 1.5%;

Cr: 1.4 to 2.5%;

Al: 0.05% or less, excluding 0%;

at least one selected from the group consisting of Ni: 0.4% or less, excluding 0%; V: 0.4% or less, excluding 0%; Mo: 0.05 to 0.5%; and Nb: 0.05 to 0.5%; and remainder essentially consisting of Fe and inevitable impurities, wherein the prior austenite grain size number is 11.0 or larger, and a ratio ($\sigma_{0.2} / \sigma_B$) of 0.2% proof stress ($\sigma_{0.2}$) to tensile strength (σ_B) is 0.85–0.81 or lower.

Claim 2 (Original): The steel wire according to Claim 1, wherein the content of manganese ranges from 0.5 to 1.5%.

Claim 3 (Original): The steel wire according to Claim 1, wherein the 0.2% proof stress ($\sigma_{0.2}$) is raised by 300 MPa or more when annealing at 400 °C for 20 minutes is conducted.

Claim 4 (Original): A high-strength spring formed of the steel wire according to Claim 1.

Claim 5 (Original): The high-strength spring according to Claim 4, wherein:

- the spring has a core part of a hardness Hv ranging from 550 to 700;
- the spring has a compressive residual stress on an surface thereof at -400 MPa or lower; and

the residual stress of the spring is changed from a compression to a tension at a depth of from 0.05 mm to 0.5 mm from the surface of the spring.

Claim 6 (Original): The high-strength spring according to Claim 4, wherein:

- the spring has a nitriding layer on a surface thereof;
- the spring has a hardness Hv ranging from 750 to 1150 on the surface thereof;
- the spring has a core part of a hardness Hv ranging from 550 to 700;
- the spring has a hard layer of a hardness Hv larger than the hardness of the core part by 15 or more, the hard layer having a depth ranging from 0.02 mm to 0.15 mm;
- the spring has a compressive residual stress on an surface thereof at -800 MPa or lower; and

the residual stress of the spring is changed from a compression to a tension at a depth of from 0.05 mm to 0.5 mm from the surface of the spring.